

REPTILES AND BATRACHIANS FROM NORTHERN YUCATAN AND MEXICO.

BY J. E. IVES.

The reptiles and batrachians enumerated in this paper were collected in the northwestern portion of Yucatan and in the lowlands and highlands of southeastern Mexico during the early months of 1890 by the Academy's Expedition to these regions. The Expedition was in charge of Professor Angelo Heilprin, and the writer, who was one of its members, is indebted to him for the opportunity of working up the herpetological collection.

The portion of Yucatan visited by the Expedition has a dry limestone soil, and the vegetation is consequently more or less dwarfed. The months of February and March, when it was visited, form part of the dry season and very little terrestrial life was apparent. The lizards, however, were an exception to this condition of things, being fairly abundant. There are no streams or rivers in Northern Yucatan, the only sources of water supply being natural or artificial cisterns in the limestone rock in which the rain water is collected. It is therefore not a good place for the development of batrachian life. The two species of frogs and one of the species of toads collected, were found near artificial water-tanks on haciendas.

The varied character of the southeastern portion of Mexico proper is too well known for it to be necessary to say anything in regard to it.

A sketch map of the northern portion of Yucatan, published by Mr. H. A. Pilsbry in his paper on the land and fresh water mollusks collected by the Expedition, on page 310 of this volume, shows the localities at which specimens were collected.

The author wishes to express his thanks to Professor E. D. Cope for his kind aid in the identification of some of the species enumerated.

YUCATAN.

Chelonia mydas L.

A skull found on the beach at Progreso.

This species is captured in large numbers for commercial purposes by the fishermen of Progreso.

Thalassochelys caretta L.

A large skull from the beach at Progreso.

Sceloporus torquatus Wiegmann, var. *mucronatus* Cope.

A female from Tekanto.

Sceloporus variabilis Gray.

A male from the Port of Silam.

Cnemidophorus sexlineatus L.

A female from Tunkas.

The dorsal scales are much smaller than in any specimens of this species in the collection of the Academy, being only about half the size. The white bands are very narrow and very sharply defined. The median dorsal area which is usually either partly or wholly of a lighter color than the adjacent areas between the light bands on either side of it, is of the same color as these, i. e., nearly black. This median dorsal area is also narrower than in the specimens which I have examined, being of the same width as the areas, between the second and third bands, on either side of it. There are faint traces of a light band along the middle of this area. The unusually dark coloration of the back is continued upon the head and the dorsal surface of the base of the tail as dark olive. The head is narrower in the region of the nasals and internasal, and slightly longer than in the specimens which I have examined. There are also seven or eight superciliaries instead of five or six. It is 50 mm. long from the end of the snout to the vent, and 160 mm. from the end of the snout to the end of the tail.

Ctenosaurus cycluroides (Wiegmann) Bocourt.

Four specimens of this species which is common throughout the dry limestone country of northwestern Yucatan were collected at Tekanto. They agree with the *C. cycluroides* of Bocourt¹ which is very likely merely a variety of his *C. completa*². It is probable that they represent the same form as the specimen from Yucatan identified by Professor Cope in 1866 as *C. pectinata* of Wiegmann³.

Anolis, sp?

A female from Tekanto, allied *A. cupreus* Hallowell.

Anolis acutirostris, n. sp.

Head rather acute; from snout to ear slightly longer than tibia; about once and a half times as long as broad; forehead slightly concave; frontal ridges very short; a few scales on the snout

1. Miss. Sci. Mex. pp. 143—145.

2. Id. pp. 145 and 146.

3. Proc. Acad. Nat. Sci. Phila., 1866, p. 124.

keeled; eyes large; scales of the supraorbital semicircles of moderate size, keeled, separated by two or three rows of scales; nine or ten enlarged supraocular scales, in two longitudinal rows anteriorly and three posteriorly, the posterior ones keeled; the second scale of the inner row of the supra-oculars much enlarged, separated from the supraorbital by a row of small scales; occipital smaller than the ear opening, separated from the supraorbitals by four or five series of scales; loreal rows seven; seven upper labials to below the center of the eye, ear opening large, vertically oval. Gular appendage moderately developed in male; gular scales smooth. Body not compressed. No dorso-nuchal fold. Dorsal scales sub-hexagonal, juxtaposed, those along the vertebral line the largest and keeled, passing gradually into the much smaller granular scales of the flanks; ventrals much larger than the dorsals, sub-circular, feebly keeled. The adpressed hind limb reaches half way between the eye and the nostril; 13 or 14 lamellæ under phalanges II and III of the fourth toe. Tail subcylindrical; covered with large, equal, strongly keeled scales.

Grayish above, with a pinkish tinge. A few scattered blotches of brown on the anterior portion of the back. Upper surface of the snout brown. Lower surfaces white, becoming a light brown on the under surface of the head and limbs. Limbs and tail with dorsal surface irregularly banded with darker. Dorsal and ventral surfaces of the body with a metallic lustre.

	mm.
Length of head (from end of snout to ear-opening),	10.5.
Width of head,	7.
Length of body (from ear-opening to vent),	27.
Length of fore-limb,	16.
Length of hind-limb,	32.
Length of tibia,	9.

A male, collected at Citilpech.

This species is allied to *Anolis cupreus* Hallowell, from Central America.

Dryophis fulgidus Daudin.

A single specimen from the ruins of Labna, near Tabi.

Leptognathus brevifacies Cope, Proc. Acad. Nat. Sci. Phila., 1866, p. 127.

A single specimen from Citilpech.

Rana virescens (Kalm) Cope, *Rana halecina* Kalm. Var. *austriicola* Cope, Bull. U. S. Nat. Mus. 34, p. 398-399, 1889.

A specimen collected near a water tank on a hacienda, near Izamal, Yucatan, apparently belongs to this variety of *Rana virescens*. The dorsal surface is dark grayish brown with still darker color markings; the ventral surface white, more or less mottled with brown. Mottlings very close on the throat, more scattered on the under surface of the limbs, and very faint on the belly. Color markings of the dorsal surface very similar to variety *brachycephala* Cope. Dorsal surface of the head and the anterior portion of the back darker than rest of the body, almost obliterating the color markings of this region. Head large, broader than long; breadth to length as five to four; contained three times in the length of the body. Diameter of tympanum about two-thirds of the diameter of the orbit. Inter-orbital space about two-thirds as wide as an upper eyelid. First finger longer than the second. Two phalanges of the fourth toe free. Extended hind limb reaching a little beyond the tip of the snout. Vocal vesicle present.

Leptodactylus labialis Cope.

Cystignathus labialis Cope, Proc. Amer. Philos. Soc. Vol. XVII, p. 90, and Vol. XVIII, p. 269.

Leptodactylus caliginosus Brocchi, Miss. Sci. Mex., Batr. pp. 17 and 18, Pl. V, fig 1.

Four specimens obtained near a water trough on a hacienda near Tekanto, Yucatan. They closely resemble the specimen figured by Brocchi under the name of *Leptodactylus caliginosus*. There are two irregular series of spots between the lateral glandular folds upon the dorsal surface, which are more or less confluent. The adpressed hind limb reaches to the eye, or between the eye and the nostril.

Bufo marinus L.

Single specimen from the court-yard of a house at Ticul.

Bufo valliceps Wiegmann.

Three specimens collected near a water-tank on a hacienda near Tekanto.

In these specimens, which measure from 56 to 66 mm. from tip of snout to vent, the inter-orbital space is not much broader than the upper eyelid.

MEXICO.

? *Sceloporus graciosus* Baird & Girard.

A young specimen from San Andres Chalchicomula, on the Mexican plateau at the base of Orizaba (8200 feet.)

Sceloporus microlepidotus Gray.

Three males from an elevation of 13,000 feet on the volcano of Orizaba.

A male from the gardens of Chapultepec, near the city of Mexico.

A young specimen from a height of 11,200 feet on Iztaccihuatl.

Sceloporus scalaris Gray.

Four males and two females from Peñon, east of the city of Mexico.

Sceloporus variabilis Gray.

A male from the town of Orizaba.

Anolis sp?

A small specimen, labeled "Mexico."

Phrynosoma Douglassi Bell.

A young specimen from Zumpango.

Eutænia insigniarum Cope, Proc. Am. Phil. Soc. Vol. XXII, p. 172.

Two specimens from Lake Chalco, and two from Lake Patzcuaro.

The specimens show that this species is somewhat variable. In one of the specimens from Lake Patzcuaro there is a well defined dorsal band of the width of three scales. In the other specimen from the same locality and in those from Lake Chalco, it is more or less imperfect. The lateral band also appears to be more or less variable; in one of the specimens from Lake Chalco, being obliterated.

The following notes in regard to the specimens will illustrate their variable features. It will be observed that the specimen showing the greatest amount of variation (No. 4) is a female. Possibly the varietal characters of this specimen may be generally characteristic of the female of this species.

(1) From LAKE PATZCUARO.

Total length 1000 mm; of tail 240 mm.

Gastrosteges 162. Urosteges 77.

Dorsal line faintly indicated. Three scales wide; lateral line more or less imperfect. Male.

(2) From LAKE PATZCUARO.

Total length 905 mm; of tail 215 mm.

Gastrosteges 165. Urosteges 77.

Dorsal line well marked, three scales wide; lateral line imperfectly developed. Male.

(3) From LAKE CHALCO.

Total length 780 mm; of tail 170 mm.

Gastrosteges 170. Urosteges 78.

Dorsal line indistinct, indicated by a band of three to five lighter scales; lateral line well marked. Male.

(4) From LAKE CHALCO.

Total length 900 mm; of tail 195 mm.

Gastrosteges 157. Urosteges 67.

Dorsal line not to be distinguished except by the absence of any dark markings upon the three rows of dorsal scales, upon which it is found when present; lateral line obliterated by the irregular dark markings of the sides. Female.

Streptophorus Sebæ Duméril et Bibron.

One specimen from the forest of San Juan.

Bufo Monksiæ Cope.

Three specimens from Zumpango, about 19 mm. in length.

Rana Montezumæ Baird.

One specimen from the plateau.

Amblystoma Mexicanum Shaw.

Siredon Mexicanum Shaw.

Numerous specimens of the Axolotl were obtained at Lake Chalco.